Owen Johnston - www.StrengthTrainingPDF.com

Progressive Calisthenics for Strength

Calisthenics are a system of exercise movements which generally do not use equipment. The goal of these exercises is to build strength, flexibility, and physical grace with movements that use only your own body weight for resistance. Calisthenics can boost both muscular and cardiovascular fitness when practiced with enough effort and variety in the exercises. Balance, agility, and coordination also gain a lot of benefit. Popular examples of calisthenics exercises include pushups and pullups.

The approach to body weight training that I teach is known as progressive calisthenics for strength. Body weight training exercises may be trained progressively by adjusting leverage, range of motion, and positioning. With these in mind, body mechanics, and movement, one may use progressive calisthenics to achieve very high levels of functional, full body strength and coordination. This is primarily because calisthenics use natural movements that act on multiple joints, and force many stabilizer muscles to be used. Lastly, calisthenics help to improve posture, as well as build supple strength and tension in the tendons, ligaments, and joints.

The progressive calisthenics for strength approach centers around multiple chains of movement and static holds. Almost any type of body weight exercise may be made progressively harder by adjusting leverage, range of motion, foot and/or hand positioning, and other such variables. Naturally, it is also possible to make exercises easier – which is especially important if you are working around an old injury and want to build up your strength again in particular joints.

The key thing to remember is that progressive calisthenics – like with weight training – is that multiple methods of progression may be used. A common type is a double progression. The first progression is building up your sets and reps in an exercise that you can work with comfortably. The second progression is moving up to a harder variation of that exercise, but only once you have built up enough strength in your muscles and joints. When you start on a harder variation, you will generally not be able to perform as many to repetitions, and as such you will return to the first type of progression.

Progressive calisthenics is more about an approach than a set routine. Everyone is different – you have your own unique body type, goals, needs, metabolism, and so forth. As such, feel free to use the progressive approach to calisthenics to help you develop your own personalized routines. Remember the key concepts to the approach – using a double or multiple progression method to build strength and skill in various types of movement, while also collecting knowledge of body mechanics, kinesiology, and "intensity variables" or "toughenners" to adjust leverage, range of motion, and positioning to make the movements progressively harder or easier. There is a seemingly infinite number of ways to adjust your techniques, and continue gaining strength from them for years and years to come.

As you practice your exercises, keep in mind that body weight training techniques can be treated like martial arts techniques. At first, when you learn a new movement, it is important to take it slowly while getting an understanding of the body mechanics behind the exercise. Then, practice it repetitively to gain skill, strength, coordination, improved posture, and balance in the required positions. From there, you can learn new variations of the body weight exercise – just as in martial arts, when learning variations of different strikes or blocks. Also, improved balance, coordination, and strength in postures help martial arts training. All in all, progressive calisthenics for strength are very useful for everyone into not just martial arts, but athletic sports in general.

Below, I recommend some calisthenics exercises. I list the muscles worked by the exercises, how to perform them, and how to adjust different variables to work them progressively. I want to emphasize firstly, however, that to achieve total fitness, calisthenics alone are not enough. Keep in mind that you will want to make needed lifestyle changes in diet, nutrition, rest, recovery, and so forth to help improving overall health in body, mind, and spirit. Scientific research has helped to develop many useful therapeutic modalities. However, we should not entirely discount or deny age old wisdom and practices. This includes yoga, meditation, prayer, solitary hiking – anything that helps you to cope with day to day stress and strengthen your spirit.

Pushups

These work primarily the pectorals, triceps, and deltoids. To get into the starting position, first get into a kneeling position, then bring your open hands up to about shoulder height as you carefully lean forward and get into a hands and knees position. From there, straighten your knees out slowly - one by one if needed. You will want to end up holding your body weight up on your palms and toes. Lower your body carefully to the floor, with the palms still against the floor, and under the shoulders. The toes should be curled upwards.

Next, simply push up with your arms while keeping your body straight, from head to heels. Your elbows should go from being almost fully flexed in the bottom position, to almost completely locked out in the top position. Take a one second pause at the top, then slowly bend at the elbows to allow your body back down to the bottom position. Do not rest on the floor when you come back down to the bottom - you will maintain light tension with the chest and triceps. However, still take a one second pause at the bottom position before beginning the next repetition. As your form and your strength in this exercise improves, feel free to change the speed of the repetition. I recommend performing reps with a slow cadence - such as a 1, 2 count, a 1 second pause between reps. This way, you force your muscles to hold tension and fight against gravity, instead of using momentum to make the reps easier.

If you're just starting out, working around an old injury, here are some easier pushup exercises. I recommend starting with wall pushups. Place your palms on the wall, keeping your hands at chest level. Keep your arms straight, and shoulder width apart. Your feet should be together and your body aligned. Bend your shoulders and elbow slowly until you can softly touch your forehead to the wall. Push away from the wall, back to the start position.

To make this exercise progressively harder, use a chair, bench, bed, solid fencing, work surface, or any other safe object or furniture that will allow you a deeper range of motion. Preferably, it will be an object about half your height and solid enough to hold you up, as you lower and push back up. As with wall pushups, start with your feet together and your body kept in a straight line as you practice this exercise. To get into the start position, lean over and get a hold of the object, with your arms kept straight, shoulder width apart. Bend at your elbows and shoulders until your torso makes contact with the top of the object. Push away from the object, back to the start position. This is one repetition. This type of pushup is known as incline pushups.

Once you feel comfortable working with incline pushups, but do not feel quite ready to master full pushups, try kneeling pushups, which help to begin mastering the full range of motion required in a full pushup.

Once you feel comfortable with kneeling pushups, move on to full pushups. However, if

you're having trouble getting out of the bottom position of a full pushup, simply lessen the range of motion used. For instance, you could place a basketball, soccer ball, or medicine ball under your hips or chest to gauge how far down to go. The key is to keep your supporting muscles tight so that your back, hips, and legs will stay aligned. Continue building strength in the correct posture for full pushups. Keep trying to increase your range of motion by at least 1 inch each week. Eventually you will be able to perform full pushups for at least 10 repetitions. Remember to always practice perfect form in these!

To make full pushups progressively harder, experiment with various hand and foot positions. For foot positioning, try posting up your feet on a chair to work on decline pushups. Instead of using a chair or other solid object, you could ask a training partner to hold your feet so that you can practice progressively steeper angles. Ultimately, you could build up to handstand pushups with your partner, or using a wall to help support you. The Convict Conditioning approach, discussed briefly near the end of this article, includes a training progression dedicated strictly to handstand pushups.

For hand positioning, try getting into standard full pushup position, then place your hands closer together for close pushups. Because of the increase in elbow flexion in close pushups, practicing them helps to build more strength in your triceps, as well as in the ligaments and tendons of your elbows and wrists. This will prepare you for training towards one armed pushups – widely considered one of the greatest feats of upper body strength.

Once you feel comfortable with close pushups, it's time to start working with uneven pushups to build up to unilateral (one side) work. Get into the top position of full pushups - resting on your palms and toes, with elbows straight, and body aligned. Support yourself on one arm as you put your other hand on a basketball. Stabilizing the ball makes you use your rotator cuff muscles, and strengthen them for later exercises.

Now, before you perform a repetition, make sure you have both arms directly below your shoulders so that you are stable. Keep your weight evenly distributed between both hands, and bend the elbows and shoulders until your chest touches the top of the hand holding on to the basketball. Pause for a second, then push back up. This is one repetition. Be sure to also practice this exercise with the ball under the other hand, to make sure both arms get worked.

If you have trouble using a basketball, try using something solid like a brick for this exercise. As you build strength in this exercise, you can add another brick and start over. Once you feel strong enough in uneven pushups, go back to using the basketball.

Pull-ups

Pullups are a compound exercise that primarily work the biceps, and latissimus dorsi (or "lats" for short). The lats are the largest muscles on the torso, and run from your armpits to down beyond the ribs. Most of the other muscles in the back also get worked by doing pullups. Not only that, your fingers, palms, and forearms are given a great workout by holding up and pulling your body weight as you grip the bar. This translates to building grip strength. Lastly, pullups give your abs and hips a great isometric workout. Because of these benefits, pullups help train the body for hanging leg raises.

To do a pullup, start by getting a good grip on a horizontal bar or anything sturdy you can hang from. Keep your shoulder girdle tight and your elbows slightly kinked in the starting position, to help prevent injury. Generally, with full pullups, you will try to pull your body

weight up until the chin clears the bar, and you then lower the body until your arms and shoulders are almost fully extended. If you don't have the strength yet to complete the full range of motion, start with easier variations of the pullup. Also, to work strictly on grip strength, try working on hanging grip work (again using a horizontal bar or anything you can hang from).

There are many ways to train pullups progressively, based on a few simple adjustments. Get a strong overhand grip on the horizontal bar, with your hands separated by about twice the width of your shoulders. Keep in mind that, like any variation of pullups, you will want to hang with your arms mostly straight, and to keep your shoulder blades retracted. You can also bring your hands in close on the horizontal bar for a close grip pullup. Using an overhand grip in a close grip pullup will help train the lats, and using an underhand grip will work the biceps harder than a normal shoulder-width grip.

"Uneven pullups" are a variation in which one hand grasps the bar, with the other hand grasping tightly around the wrist of the pulling hand. The elbow of the working arm should be slightly bent, and the other elbow bent at a larger angle. The thumb of the supporting hand will be just below the opposite palm, with the fingers below the back of the hanging hand. Both elbows will be out in front of you. From this starting position, bend your elbows and shoulders, as you pull yourself up smoothly, until you clear your chin over the bar. Take a short pause at this top position, then lower yourself slowly back down to the starting position, where you will pause again before beginning the next repetition. Because you are supporting your body weight from one hand during uneven pullups, practicing them help you to begin transitioning to one arm pullups. If you find it hard to keep hold of the horizontal bar, go back to close grip pullups, to build up your sets and reps. I also recommend practicing some hanging grip work.

Squats

Squats train primarily your quadriceps, hamstrings, calves, and gluteals. Body weight squats are among the best exercises to train the legs, because they are a natural, functional motion that trains most of the muscles in the legs in synergy. Even the hamstrings, shin muscles, hip flexors, and calves get trained by squats. If you look at the body mechanics of running, jumping, sitting down, standing up, pushing a heavy object, pulling such as in tug of war, you will see they all use bending at the legs and hips – just like squats!

To train squats progressively, experiment with the positioning of the upper body or the feet, or how close together your feet are when you squat. The performance of the standard full squat is fairly straight forward. Simply stand with your feet at shoulder width apart, and squat down as far as possible, with your upper body aligned, then return to standing position. Make sure your knees bend outwards and that your heels remain on the floor throughout the exercise.

If you are new to squats or are working around an old injury, start with this simple variation. Stand in front of a chair, table, or something similar that comes up to about your knee level. Keep your legs straight and at least shoulder width apart. Bend over at the hips so you can lightly rest your palms onto your object of choice. This will put some of the load onto your upper body, thus making the squats a bit easier on your legs. It also helps maintain balance. As you perform squats from this starting position, try to keep your torso parallel to the floor or ground. Bend your knees and hips until you cannot go any further down. Your

hamstrings and calves should reach each other. Your arms will necessarily bend as well on the way down. From this finish position, use combined leg and arm strength to push back up to the start position.

Do not raise your heels at any point, so that you don't bounce during the squats (to prevent injury), and to make sure that the squat stretches out the Achilles' tendon. Having flexibility in that area will help you to master the lowest position of a full squat. If you're having trouble making it out of the bottom position, don't worry! Just try to increase your range of motion a little each workout. Another way is to use a little more arm strength to take some of the load off your legs as you come out of the bottom position. As you build leg strength, you will rely less on your arms.

Once you feel comfortable working with this type of squat – called jackknife squats - start using a higher object – such as a desk, back of a chair, or similar. Again, your legs should be straight and about shoulder width apart, with your arms out straight, holding on to your object of choice. Keep your back straight as you squat down for the deepest range of motion that you are comfortable with. Gradually increase the depth of your squats as you build strength. Remember to keep your heels flat on the floor.

Once you have built up your leg strength, you will be ready for full squats. Once you have worked up to 2 or 3 sets of full squats with good form, you are ready to notch up the difficulty. I recommend moving to close squats next (legs together). After that you'll be ready to start transitioning to pistols (one leg squats).

A good variation is chair pistols. Stand on a chair or other sturdy object with the working leg and let the non-working leg hang. Be prepared to "catch yourself" on the non-working leg if you're still working on the balance requirement. Push through the object you're standing on with your working leg and aim to straighten the knee, but a partial movement is fine at first with this exercise as well. Steadily tighten up on form as you improve your strength with these. Once you feel comfortable with these, try to bring the non-working leg to where it is parallel to the ground, during the eccentric movement of the squat.

Once you've built up strength in chair pistols, move to self assisted pistol squats on the ground. Use a sturdy object under your foot or pressing off of it with the hand that is on the same side as the non-working leg. Higher objects are easier, lower objects are harder. Unstable objects also make it harder (basketball, etc.). Remember to take it slow and hold very tight tension on the non-working leg. As you improve, the hamstrings of the non-working leg and the quadriceps of the working leg get a better and better stretch.

I also recommend partner assisted pistols. Basically, have a training partner 'spot' you as you start working on halfway down one leg squats. Keep the body aligned, with your arms straight out. Your partner will stand beside you and place his or her palms under the arm on that side. Put one foot out in front of you, at about the height of your other thigh. The raised leg should remain locked, and held off the ground, throughout the exercise. Slowly bend at the hip and knee of your standing leg, until the knee is at about a 90 degree angle. Pause briefly and push back up. Your partner should help you maintain your balance, as well as give some assistance in coming back up, by pulling up slightly with her or her hands.

If you do not have a partner, you can stand beside a chair or wall if necessary to help you correct your balance. You can also use hand rails, or the type of rails you see on playground equipment, for support. However, do not rely too much on an external object for this exercise, so that you can still practice the required balance and skill needed to try full one-

leg squats. Holding a leg out during work sets helps to further develop your hip flexors. If you have trouble performing half one-leg squats, do not squat down quite as far at first, and gradually add depth each workout.

Remember to keep all squats strength-led – no momentum or bouncing! Don't forget other leg training ideas, such as lunges, bunny hops, duck walking, and hill sprints.

Leg raises

This type of exercise works all the muscles in the abs, as well as your rectus femoris. It also gives a good stretch to your hamstrings. You will ultimately want to build up to hanging leg raises. Going beyond leg raises is also possible – there is a whole world of possibilities!

If you're deconditioned, you may want to start with a static hold called “six inches”, where you lay flat on your back, with legs extended and knees straight. Then, lift your feet a few inches off the floor and hold for time. This will gently condition your abdominals and get you used to the start position for leg raises.

Next, let's work on some easy variations of leg raises. First up is flat knee raises. Simply lie back flat on the floor, put your legs together, and your arms down by your side. Bend your knees at about 90 degrees, and keep the feet a few inches of the ground. Press hard on the floor using your hands if needed, to keep your body stable. From there, bring your knees up smoothly until they are over your hips, and exhale as you do this. Pause briefly, slowly lower your feet to the start position, and make sure to inhale as you do this. Keep your abdominals tight, and your knees at a 90 degree angle throughout the exercise. If this is too hard at first, raise one knee at the time, then the other. Once you can perform knee raises for 2 sets of 20, straighten your legs out a little each workout until you can perform straight leg raises.

At this point, you should be ready to work on vertical knee raises. The goal is to slowly build up to doing hanging straight leg raises. Your latissimus dorsi muscles get worked along with your abdominals. You also get some benefits to your forearms and shoulders, since they are used to hold your weight from the bar.

When you first grab onto the bar, try to stop swinging before doing anything else. Your body should be still and your legs straight before you start the first repetition of the exercise. Slowly raise your legs as far as you can. As your abs get stronger you can increase your range of motion in this exercise, until you are doing full range of motion leg raises (where you touch your feet or shins to the bar).

Calf raises

These primarily work the gastrocnemius and soleus muscles of the calf. The anterior tibialis also gets some ancillary benefit, even more so if calf raises are practiced off a step or curb to add depth. The basic calf raise is to stand normally on both feet, in a relaxed position, with knees bent. Simply raise your heels such that you will be standing on your toes, and then lower your heels down to the floor again. That is one repetition.

Calves do well on a diet of high reps, and some athletes work bodyweight only calf raises for reps going into the triple digits! Once you have built up your reps in calf raises, try elevated calf raises. Stand on a block, step, brick, or other sturdy small object or an elevated pathway (such as at a park). Make sure you have something to support yourself with (wall, handrails, pullup unit, etc). You will want your heels to be able to lower past the level of what you're standing on.

If doing this feels uncomfortable, you may need to work on ankle flexibility. First, make sure you warm up your lower legs properly to get the blood flowing to the muscles and to loosen them up. Next, to perform a deep stretch, stand on a sturdy, flat object or elevation of choice, and simply lower your heels as far as you can under control. You will want to stretch to the point of mild to moderate discomfort, and hold this position for several seconds, then push back up. Gradually build your range of motion and the length of time you can hold the stretch for. This will also help you build supple strength in your joints and connective tissues!

Once you're used to doing calf raises on both feet, start exploring one foot variations.

While progressive calisthenics are still the most effective way to train your calves, a lot of people like to supplement them with weights. I personally prefer to use sandbags when I want to add some resistance to calf raises. Other ideas for calf training include skipping rope, as well as box jumps. The calves are very important in many athletic sports, and as such, I find that there is no shortage of calf training ideas!

Dips

These primarily work the pectorals (chest), triceps, and deltoids. Dip are generally practiced between parallel bars, or two sturdy objects. The feet are crossed, and the body is lowered until your elbows are lined up with your shoulders. From there, push yourself up until your elbows are almost completely locked out.

If you do not have the strength to perform full dips yet, let's think progressively! I recommend starting with chair dips or bench dips. Any sturdy object at about your 'sitting' height should work. Keep practicing until you can build up to doing full dips.

Once you have built up your reps and range of motion with these, try partner assisted or self assisted dips. One idea for self assisted dips is to put a gymnastics block or cheese under you while you're performing dips on parallel bars, so that you can use it to force a lessened range of motion or to take some of the pressure off of your upper body. If the bars are low enough, you can also use your legs to assist you in the upward phase of the dips. This same idea can be used for dips performed between benches or other sturdy objects. Once you get used to full dips on parallel objects, try using a single horizontal bar (even handrails at public parks work well).

Visit the below blog and click on the link that says 'Bodyweight training videos' for video tutorials on chair dips, as well as other exercises, and ideas on progressing. If you are visiting the mobile version of the site, you can find a link to the site menu in the top post.
http://www.strengthcalisthenics.com

My reference for this article
Wikipedia article on calisthenics -
http://en.wikipedia.org/wiki/Calisthenics

Recommended Books

Convict Conditioning, and Convict Conditioning II, written by Paul "Coach" Wade

Be sure to check out these books for various training progressions that I haven't covered here. These books inspired my approach to progressive calisthenics for strength. The first book provides training progressions for pushups, squats, pullups, leg raises, bridges, and handstand pushups. It provides a solid foundation for the second book, which details progressive calisthenics for the extremities (neck, forearms, calves), as well as lateral chain training, and active flexibility. It also has useful chapters on diet and nutrition, recovery, and good mental habits.

The book Overcoming Gravity, by Steven Low, details many very useful body weight training progressions based on gymnastics. The book also has a lot of useful information on anatomy, how to structure your own workouts, and much more.

In the article “Integrating Basic Gymnastics with Other Body Weight Training Methods”, I detail some ideas on integrating basic gymnastics skills and training with other types of old school calisthenics, as well as martial arts training methods. Visit my article page for this and other articles. Point your browser to the site below and click on “Articles page” - http://www.strengthtrainingpdf.com

Another must-read is Brooks D. Kubik's 'Dinosaur Body Weight Training'. Like Paul 'Coach' Wade, Mr. Kubik pays a lot of respect to the old time strongmen and physical culturists. His Dinosaur Training philosophy promotes a return to the types of training that they engaged in, including progressive body weight training. View my related writeup below - http://www.oddobjecttraining.com/2013/07/dinosaur-training.html

Be sure to also read my In Pursuit of Perfection series of articles, which detail an outline of my formulation of martial arts and fitness. The articles are included in my karate student guide book – http://www.understandingkaratepdf.com